



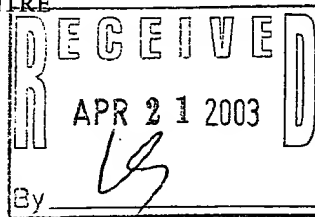
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/383,828	08/27/1999	EVREN ERYUREK	R11.12-0685	7087

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EXAMINER

KIM, PAUL L

ART UNIT PAPER NUMBER

2857

DATE MAILED: 04/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

J.W.
DOCKETED 6-15-03
CHECKED BY 7-15-03
10-15-03

Office Action Summary

Application No.

09/383,828

Applicant(s)

ERYUREK ET AL.

Examiner

Paul L Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-89 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-68 is/are allowed.
- 6) ☒ Claim(s) 69-89 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 18, 19
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 69, 70, 73-78, 80, and 82-88 are rejected under 35 U.S.C. 102(b) as being anticipated by Shanahan et al.

With regard to claims 69, 73, 77, 78, 80, 83, 87, and 88, Shanahan et al teaches a pressure transmitter comprising: a differential pressure sensor (fig. 6, part 10), an impulse piping configured to couple the sensor to the flow (fig. 6), a measurement circuit to calculate the flow of process fluid (fig. 6, part 16), a computation circuitry that calculates a statistical parameter of the sensor output (col. 7, lines 35-40), a memory that contains a baseline statistical parameter (col. 7, lines 45-47), a diagnostic circuitry configured to compare the statistical parameters and provide diagnostics if the difference exceeds a threshold (col. 7, lines 44-50), and an output circuitry (fig. 6, "READ OUT" box).

With regard to claims 70 and 82, Shanahan et al teaches the statistical parameter comprising standard deviation (col. 8, lines 43-48).

With regard to claims 74-76 and 84-86, Shanahan et al teaches the primary flow elements and impulse lines being adapted to an orifice, venturi, and a nozzle (col. 5, lines 39-42).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 71, 72, 79, 81, and 89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shanahan et al in further view of Di Marco et al.

Shanahan et al does not teach a diagnostic algorithm being a neural network, fuzzy logic, wavelet, or Fourier transform. Di Marco et al teaches a fluid flow analyzer where the diagnostic circuit uses fuzzy logic (col. 6, lines 46-50). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Shanahan et al, so that the diagnostic circuit of the pressure transmitter uses a diagnostic algorithm, such as fuzzy logic, as taught by Di Marco et al in order to more accurately analyze flow measurements.

Allowable Subject Matter

5. Claims 1-68 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach a pressure transmitter that calculates a moving average or calculates a difference of a moving average and pressure signal in diagnosing a flow element.

Response to Arguments

6. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., moving average and trained data set) are not recited in the rejected claims 69 and 80. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With regard to argument on page 4, paragraphs 3 and 4, Shanahan et al does teach the fluid pressure measuring system having diagnostic determination and the diagnostic determination indicating changes in the flow sensing condition (col. 6, lines 5-22)

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory

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action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Furuse teaches a method of testing for leaks by sensing fluid flow pressure from an impulse piping.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Kim whose telephone number is 703-305-7468. The examiner can normally be reached on Monday-Thursday 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 703-308-1677. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-4440 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

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PK

April 3, 2003



MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800